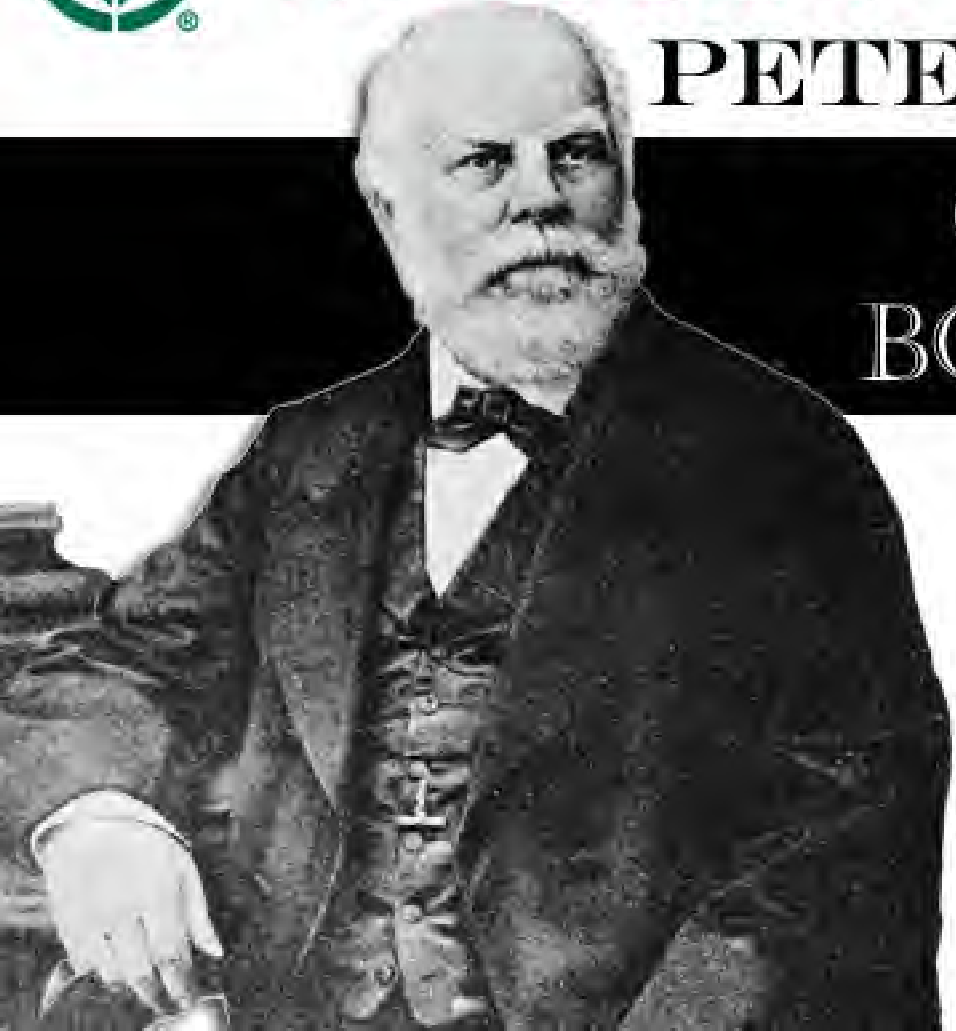
MISSOURI BOTANICAL GARDEN

PETER H. RAVEN LIBRARY



GEORGE ENGELMANN BOTANICAL NOTEBOOKS

Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Addres Me at
Osmer near Ranch P O
Utah

Ans^d 26 Oct
an 18 Nov.

Fairview Utah Sept 15 '76

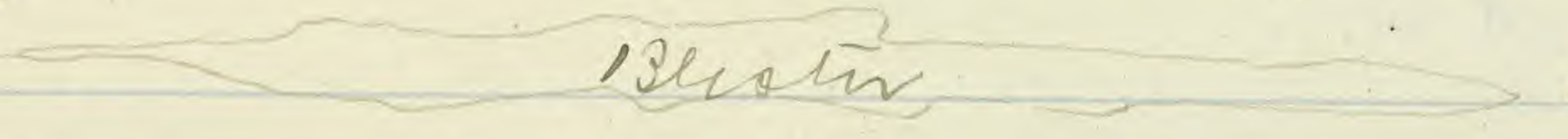
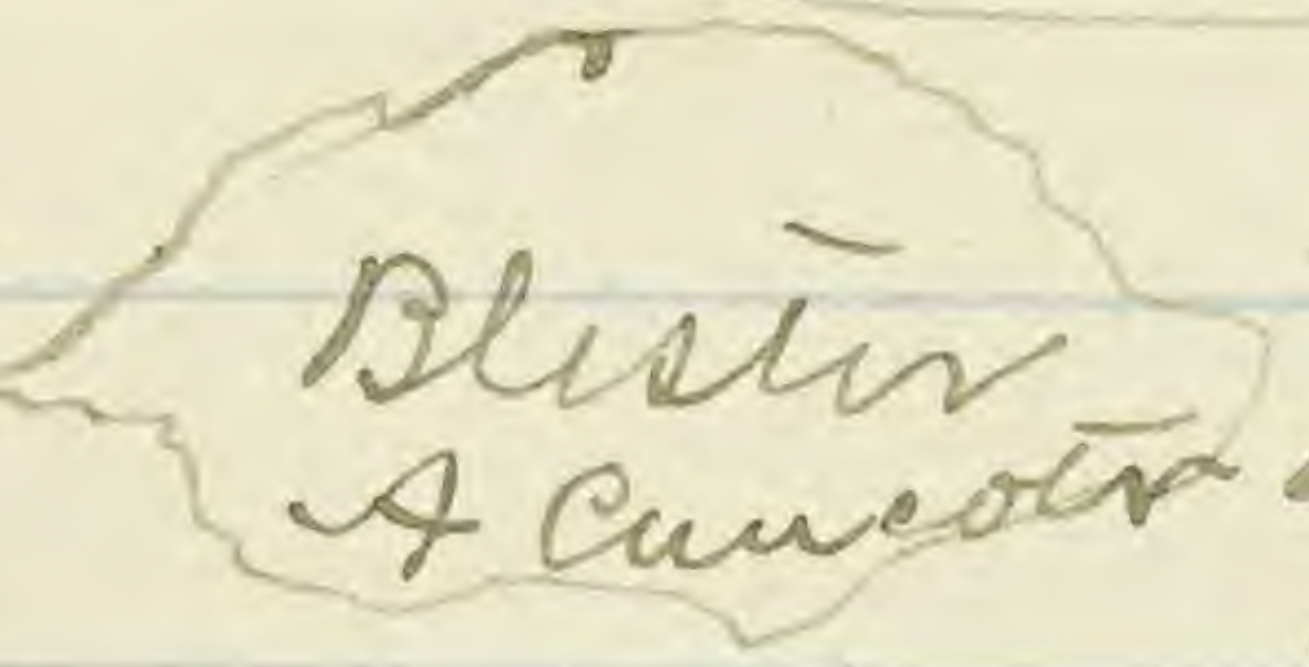
Dr George Englemann

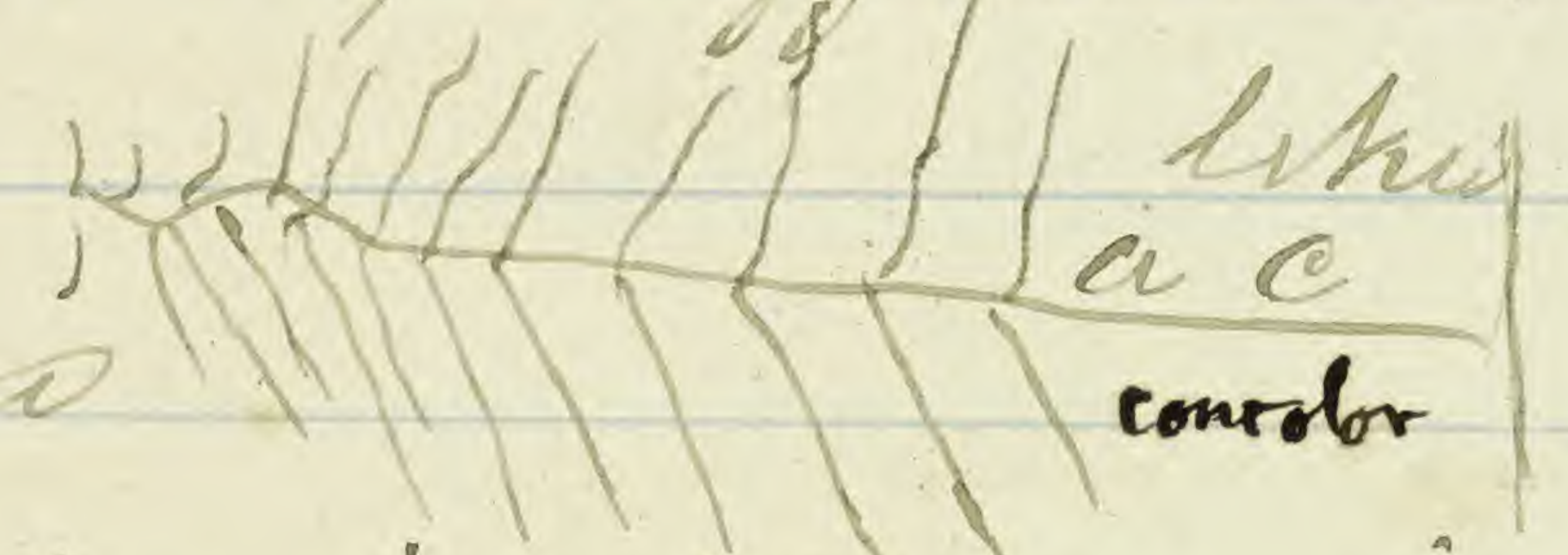
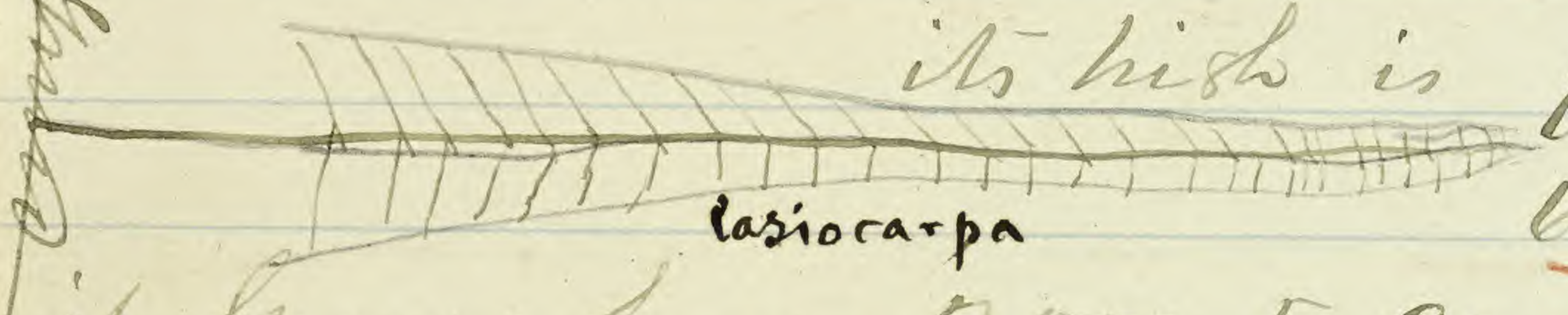
Dear Friend I now propose to Answer your letter of June 12 as fully as I may be able.
I have sought diligently for Green Cones of the Abies Concolor var ~~diva~~ but I have not been able to find them as no Conifers are in fruit this season in the Wasatch range

Abies lasiocarpa

This tree is closely allied to A Concolor but a marked difference is easily observed in many points 1st the Cones judging from samples sent in box today are not so long although they as you will see grow Erect as A Concor. 2^d the bark of this one is smoother than A Concolor both in the young and in the older tree

12844

the blisters on this tree run in a horizontal direction around the tree thus  while those on A Concolor are more in this  form

3° the Habit of the tree is very diffrent as Abies Concolor Grows  like this. While the one now under Consider is more in this form  its high is from 60 to 80 ft it Grows from 7500 to 9000 feet above the sea. And generally on cool damp hill sides facing to the north while A Concolor grows on higher peaks generally about the same altitude but A C will grow in more exposed bleak places than I have seen The Leaves of this tree are smaller & darker Green than abies Concolor on the under side while many of them when you look down on

Able to [illegible]

---

thou
they
are
lear
woo
Smi
of it
Sun
I a
the
mils
very
here
A D
asp
of C
Suit
inst
a 2
emp
The
Cut
at 3
Estim

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

them from the tops of the mountains they look like Silver maple they are so very silvery. Another peculiarity is the smell of the leaves & wood the A.C. has a pleasant fragrant smell while this and on account of its peculiar smell is called by Lumbermen "Shit lasiocarpa ass balsam"
I obtain specimens sent today in the Wasatch range of mountains 80 mils S.S.E. of Salt Lake City where it grows very abundant It is found growing here with A Engelmannii A Concolor A Douglasii Pinus flexilis & quaking asp. the samples of Bark Cones & leaves of Cones with leaves & cone stems sent today were collected on the 9th inst on the head waters of Oak Creek a tributary of San Pitch River which empties into the Sevier Savier river
The tree from which the bark was cut was 7 ft 5 in in circumference at 3 ft from ground and was estimated to be 70 feet high by the Lumbermen

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

with me at the time in which estimate
I concurred

I am sorry that I am not able to send you perfect cones of this years growth but I shall if I have orders for A Concolor & A Englemanii seed for next year try hard to get you good specimens & send you as I shall collect seed here in this locality

I can if they send furnish seed of this Variety. also A Concolor A Douglasii. A Englemanii & A Menziesii to any of your German friends

Please write me fully in regard to this abies & if you can obtain me any orders for seed such favors will be duly appreciated

I send Sigar box with leaves stems cones leaves & stems in it also 1 piece of Bark 3 packages

Believe me yours

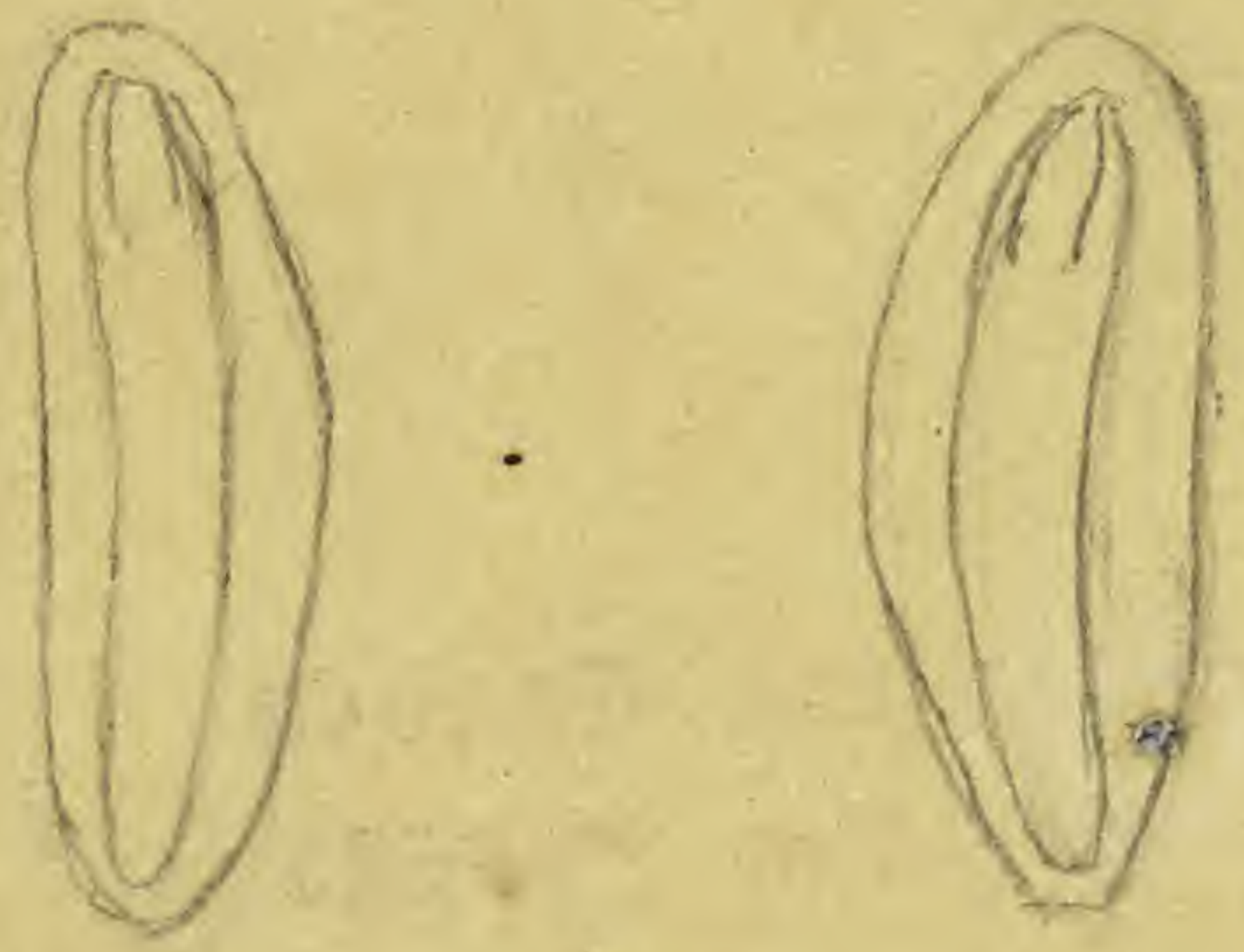
A. L. Siler

Abies grandis

Dec 22 1874

Utah

4 or mostly 5 cotyled



sections

×4

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

HENRY EHRHARDT,
PHARMACEUTICAL CHEMIST,
No. 301 South Fifth Street, Cor. Myrtle, ST. LOUIS.

No. *Date* 187

℞

12845

Abies grandis   Empire Sept 10 '74
Colorado

Germination – Usually 4 Cotyledons

Sometimes I find the 4 shorter alternate leaves above and close to the Cotyledons, but more often they are absent and a number of bud scales follow, whereupon the stem elongates etc

Cotyledons plano-convex, without stomata below carinate with 2 stripes of white stomata above – obtuse

Other leaves all slightly notched, grooved above and without stomata or with a few toward the tip; carinate below and with two stripes of white stomata, more regularly seriated than those of the upper side of Cotyledons

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

12846

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

Abies grandis bottom of Clear Creek, above Empire City
12 inches diamt. 65 rings, 55 feet high; bark smooth 1/4";
very straight — abundant blisters in bark, full of balsam;
wood soft, decaying before the bark
therefore annual rings average: 1.06 lines Dr Parry 1872

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI
BOTANICAL
GARDEN

12847

T. S. Brandegee writes Sept 1875.

The Pacific slope Abies (southwest Colorado) are all, I think
A grandis trees large, bark smooth.
i.e. subalpina

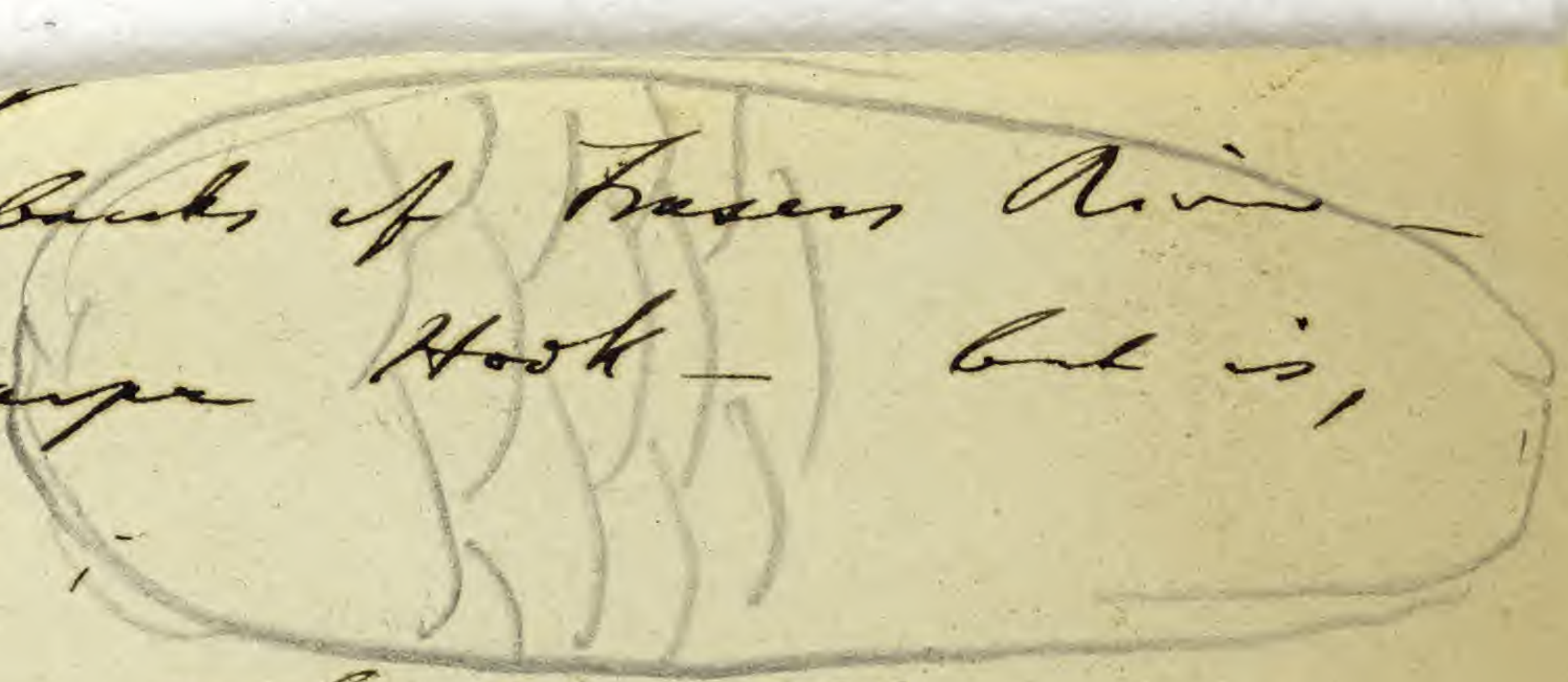
12848

"Cuscuta Californica"

, 1803 Hartweg — very little

, Bigelow Bot Whipple on Dalea Fremont —

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI
BOTANICAL
GARDEN



393 Oregon Committee, printed label — alluvial banks of Frasers River — Jeffrey — named by ~~Sir W. ...~~ the committee P. lasiocarpa Hook — but is, fide pencil mark by Gordon, P. amabilis;

Cones (immature) small patentulous — no bracts visible
No. 393 is the large Coned plant, figured in Oreg. Com Rep. as lasiocarpa & is a amabilis Bolander [?]

Confusion in numbers — fide Murray: the latter is properly No. 409

Abies amabilis Dougl. fide Parlatore, „not amabilis" fide Murray. —

Columbia Valley, Lyall 1860 — leaves short crowded, varnished, but not white — those of erect branches densely crowded, very acute; those of horizontal branchlets obtuse curved up — axes of cones 5–6 cent long — — Lyall No. 3. Rocky Mts 49 lat. 7000' high is the same 1861
Is this crowded leaved and varnished form that of the higher Mountains?

this is A. bifolia Murr

Douglas' own specimen: „abundant on the Mountains at Grand Rapids and near the confluence of the River — 1825, green, but paler below — not varnished —

East side of Cascade Mts Lyall July 1860 resembles best the last — was marked at first A. grandis? but Murray says it is amabilis — Cones axes 6 cent. bract of cone short bifid, cuspidate

mem. at Kew. Herb. Sept 8 1869

12849

Abies

Gardeners' Chronicle Jan 23 1875
p. 105

by Andrew Murray.

Roezl sent home conifers (probably from New Mexico.) They are:

Picea
Abies concolor is a var of A. grandis; the mealy white appearance of the leaves is common to grandis all over the mountains alongside of the alkaline wastes between the Rocky Mts and the Sierra Nevada, and this ! mealy aspect is a common prevailing feature over the whole vegetation there. —

There only remains the slight curving of the leaves to distinguish it from grandis — which is variable.

12850

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI
BOTANICAL
GARDEN

Concolor

dry chaffy scaled
large buds (Barron

leaves flatter, less channeled
generally more acute (Symes)

Lowiana

resinous small buds
(Barron & Gard Chron)

12851

Rec May 19

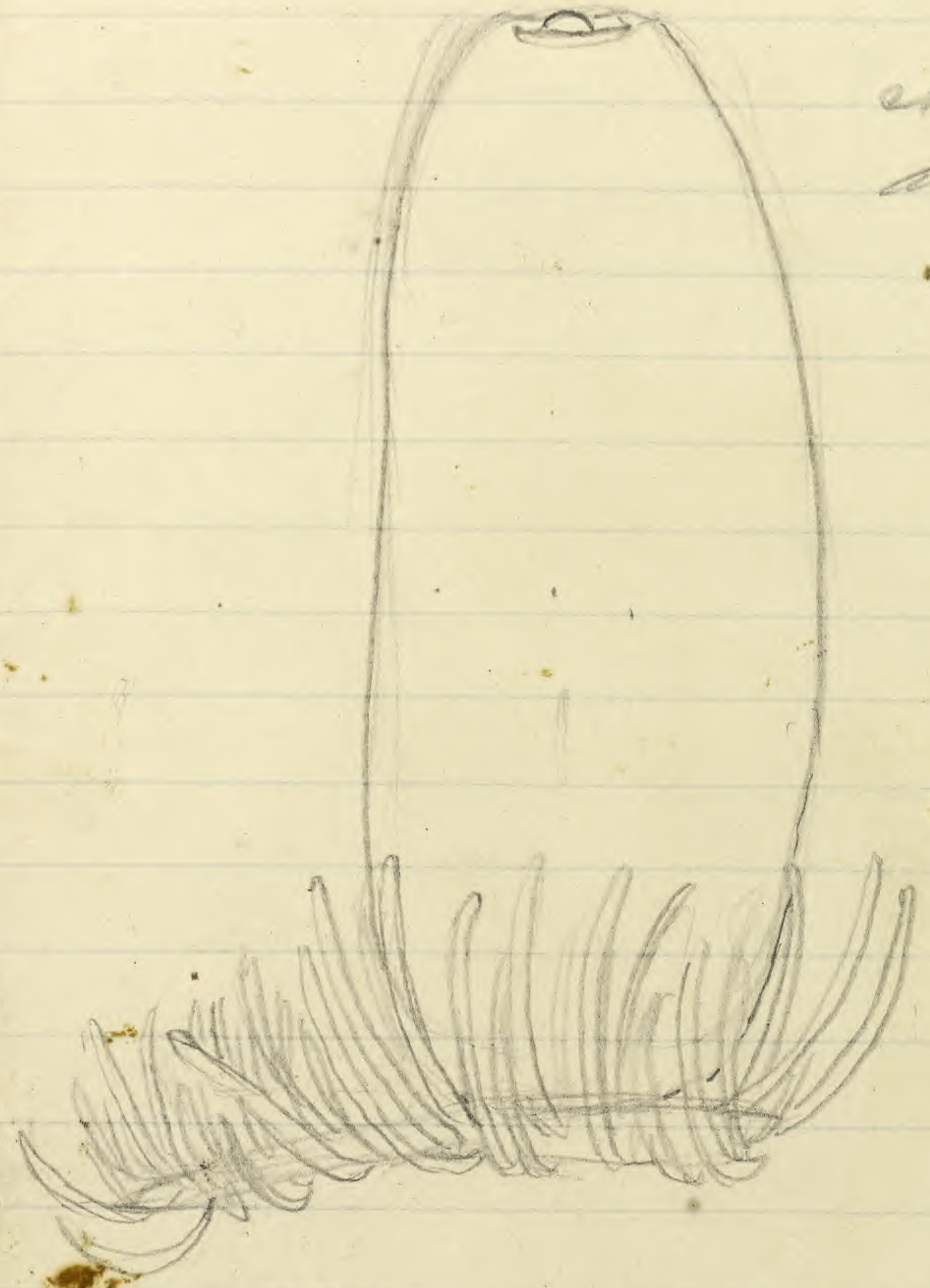
0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI
BOTANICAL
GARDEN

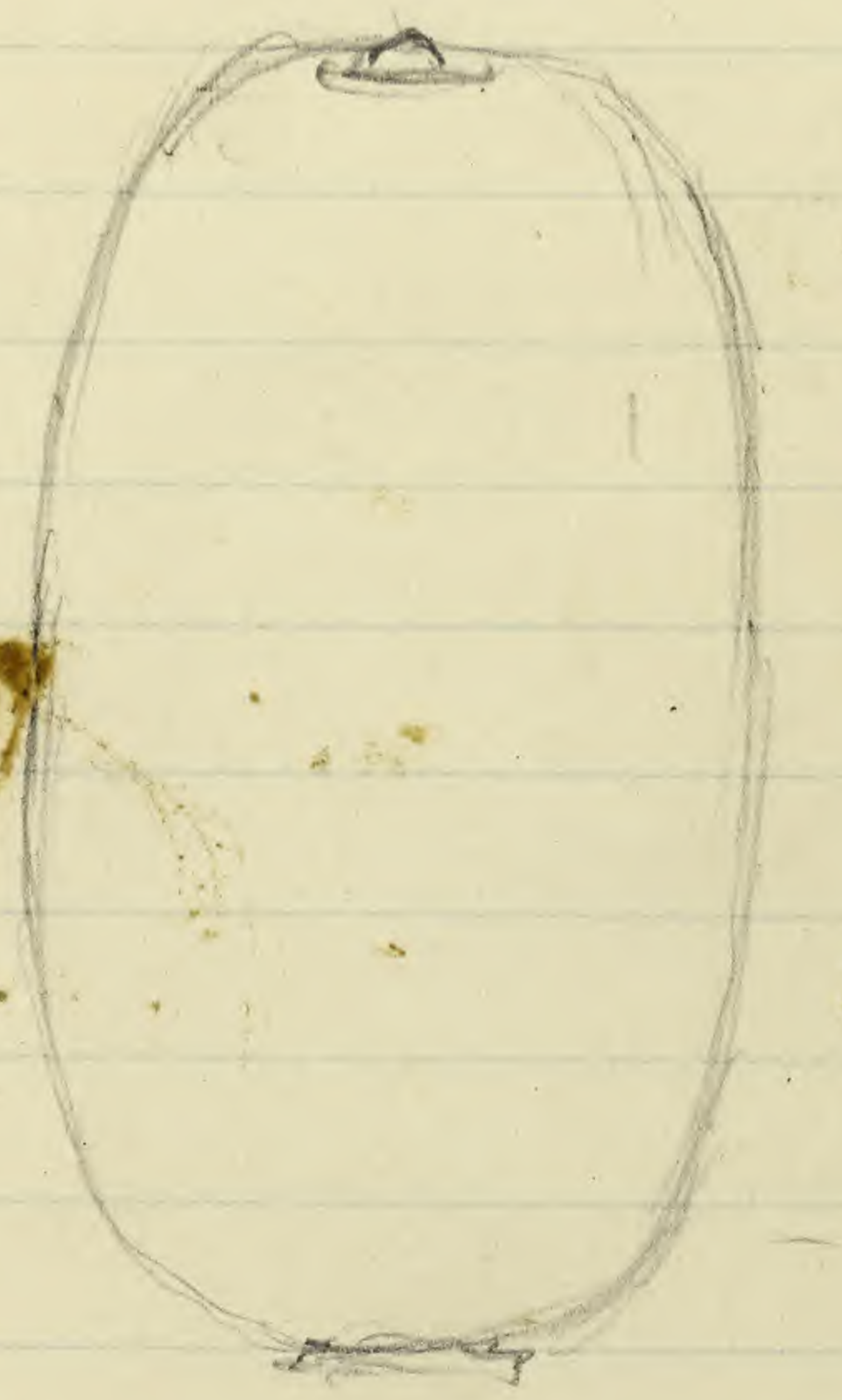
Pinus concolor, Engelm in Herb. 1848
A. Fendler's sp. Santa Fe No. 828
Abies concolor Lindley mss in Gordon
Pinet. p. 155 1858
Picea concolor Gordon ibid. (all three names first
quoted here by Gordon
Pinus concolor Engelm. in Parlatore DC Prod XVI. 2 p. 426 (1868)

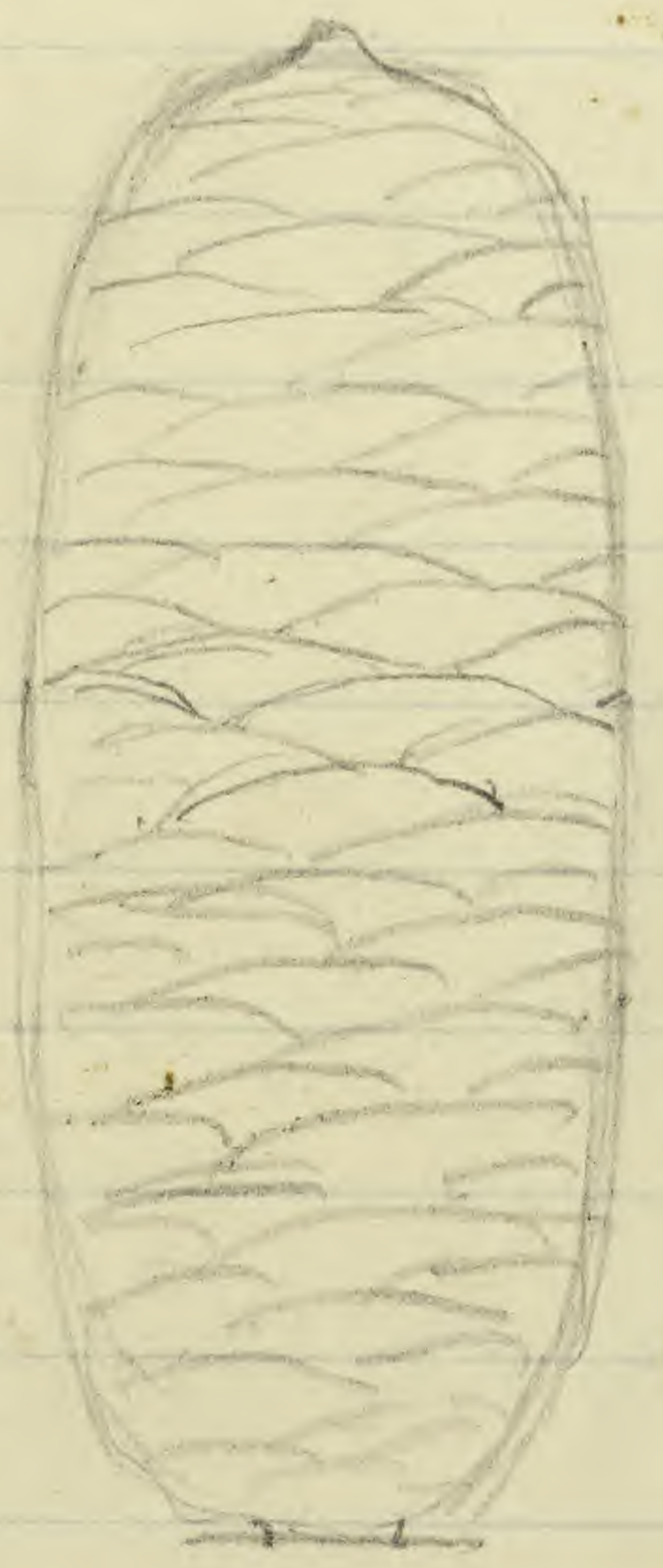
Cotyl 5-7

Apple green cones of Abies concolor
Glen Eyrie, in the Cañon near Colorado Springs

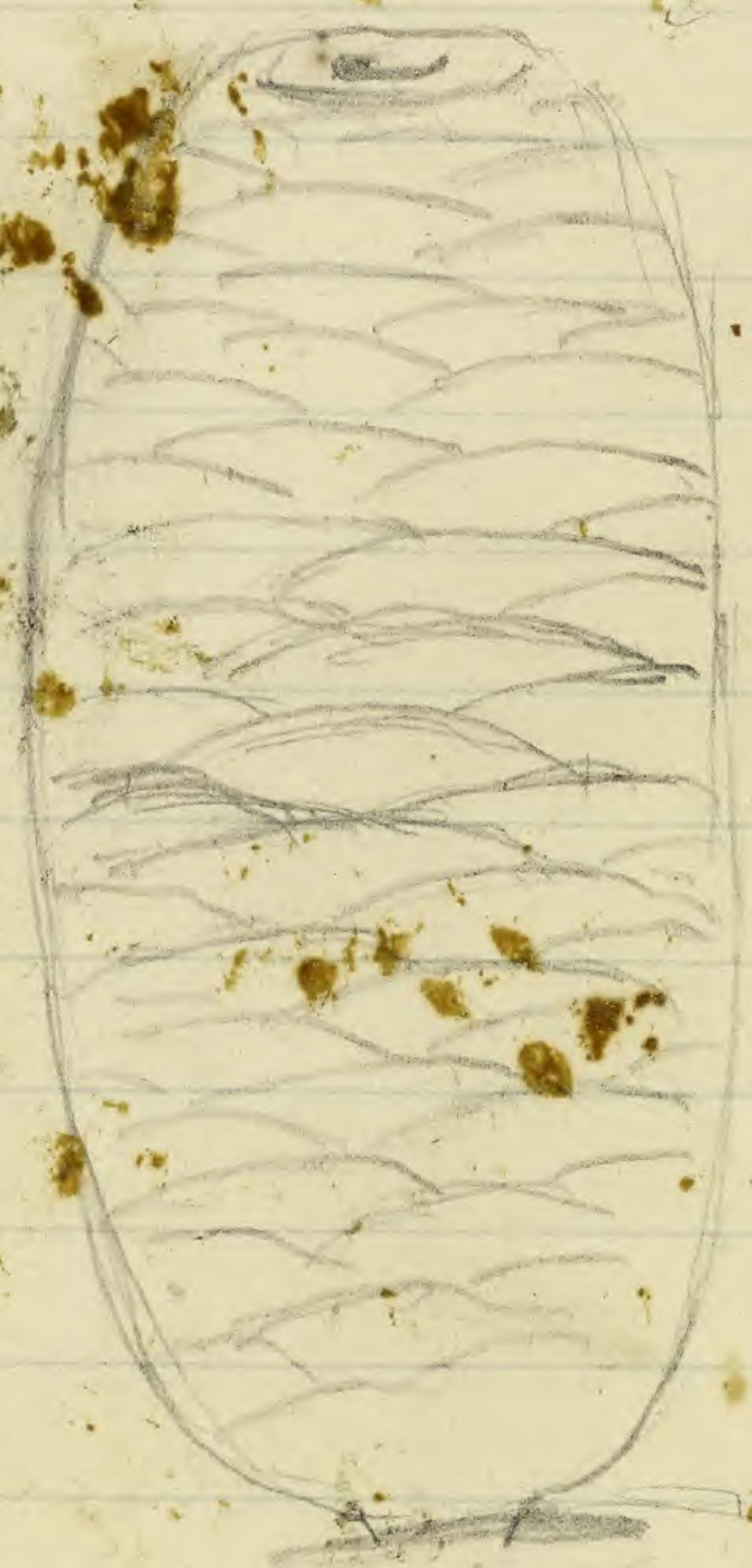
These three cones are the extremes in size seen
all three knobbed



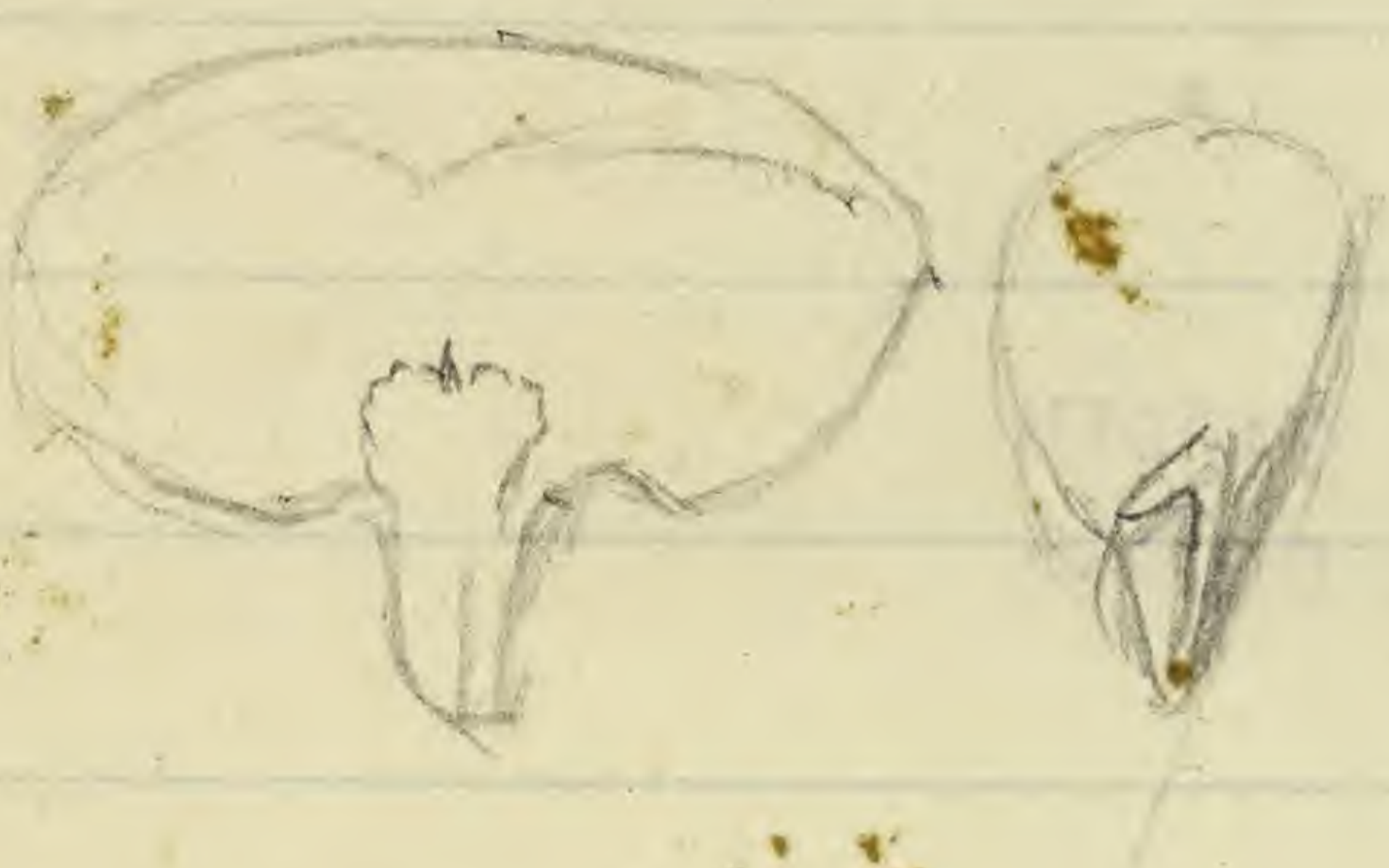




cone deeply umbilicate
as is very often
the case



scales too far apart



Bark thick, dark silver gray in young trees up to 6 or 7 inches diameter; after that they become gray thick, much cracked more like some oak bark. Even the youngest bark is thick.

Young tree cut down in Ute Cañon near Manitou has reddish heartwood Douglasii!

12852

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

June 17 76 This was published in A. lasiocarpa

Abies subalpina is the provisional name, Dr Engelmann gave to that fir, which occupies the highest wooded regions of the Rocky Mountains from Colorado northward and westward to Oregon, up to the limit of tree vegetation; in lower altitudes ~~farther south and lower down~~ it is replaced in the Rocky Mountains of Colorado and Utah by A. concolor and in Oregon by A. grandis. ~~Most of the spec in the Oregon Collections it is almost always mix in~~

~~It is not~~ All the fir specimens collected in upper Colorado, by Parry, Hall and others belong here; ~~only Mr Brandegee stands Com~~ but in the Oregon collections it is almost always confounded and mixed with Abies grandis, and in both regions has been designated by this name. ~~But it has a much~~ nearer affinity to the eastern A. balsamea, of which it may prove to be a geographical variety.

The leaves are shorter than those of grandis; those of the lower, sterile, branches are slightly emarginate and (without stomata) on the upper side grooved; those of vigorous shoots or ~~fertile~~ conebearing branchlets are acute, convex above, and provided with stomata; The cones are purplish brown, the scales rarely wider than long, no essential difference in the bracts, which are variable in all our ~~Abies sp.~~ firs.

Mr A Murray recognized ~~it~~ in an Oregon specimen collected by Dr Lyall the difference in ~~fertile~~ leaves of sterile and fertile branches, and sought to indicate it by the name of A. bifolia, which however is ~~grand totally~~ a misnomer, indicating something very different from what was intended.

St Louis Transactions

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

12853

cordate, obtuse or sometimes acute at base, obtuse and in youth bristlepointed at tip, on the margin revolute, thick and leathery, persisting 15-18 months. Leaves vary sometimes to broadly obovate or are rarely, in young shoots, sinuate-angled; they are usually ~~between 1 & 2 1/2~~ 1-1 1/2 or even ~~rarely~~ 2 inches long, but in vigorous ground-shoots have been found 2 1/2 and ~~even~~ 3 inches in length by 2 in width. The young leaves are densely covered with a rusty, clammy scurf of articulated hair, which after a ~~few~~ month or so disappears, leaving a glossy surface. ~~Aments about 1/2 inches long,~~ Vernation imbricate; youngest leaves flat with recurved margins. Aments about 1 1/2 inches long with stellate-canescent rhachis, 5 oval pubescent calyx lobes and few (mostly only 2-3) small cuspidate anthers. Fruit sessile or ~~often~~ short peduncled, single or ~~2 together~~ usually in twos; cup very shallow, about 6 lines wide, with ovate-triangular obtuse scales; gland ovate or subglobose 5 or 6 lines long, covered for 1/3 or 1/4 of its length by the cup.

(46)

Q. virens, Ait. A shrubby form is var. maritima Chapm., Q. maritima, Willd, from which var. dentata, Chapm. can not be separated; both have shorter ~~acorns~~ and often larger acorns on shorter peduncles than the species; the former is the larger shrub, (rarely as much as 8 or 10 feet high,) with usually entire, lanceolate leaves; the ~~latter~~ often fruits when only 1 or 1 1/2 feet high, leaves sometimes dentate or sinuate-dentate, 1-2 inches long; vigorous groundshoots ~~not rarely~~ occasionally produce broad-oval ~~to~~ entire or dentate leaves, 3-4 inches long and 1 1/2-2 1/2 wide.

Hybrid oaks